



FLEXENERGY

CLEAN ENERGY FOR THE PLANET

SCAQMD September 2011

FLEXENERGY INC: COMPANY OVERVIEW

Over 100 Employees

Headquartered in Irvine, CA

Manufacturing Facilities in Portsmouth, NH and Mocksville, NC

Acquired Ingersoll Rand Energy Systems in 2010



POWERSTATIONS

PRODUCTS:

FP 250



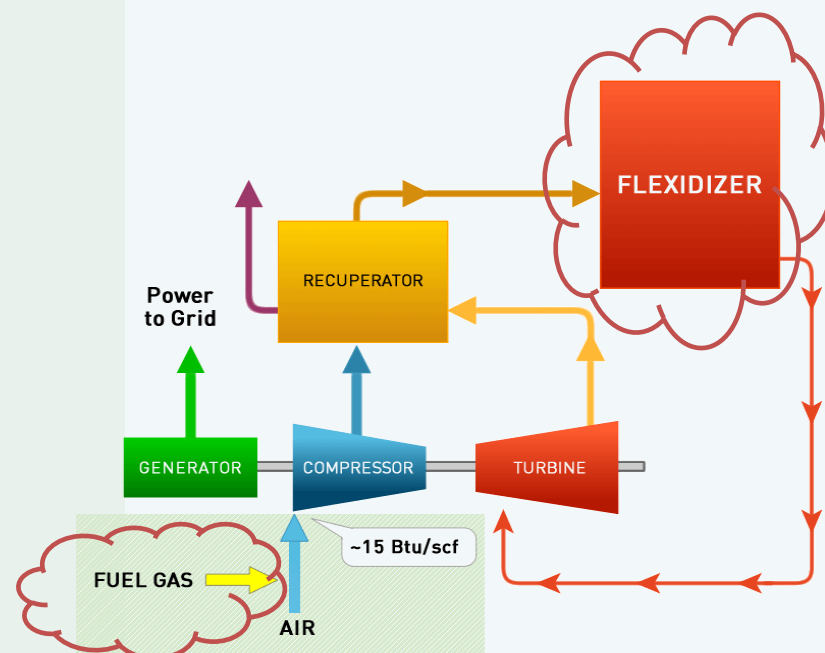
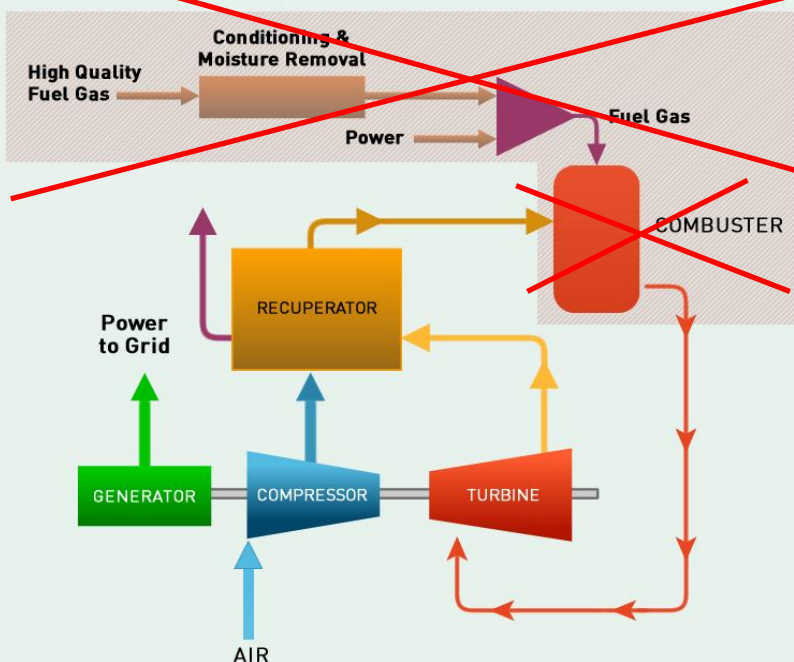
Product Description

- Integration of turbine and oxidizer technology
- Operates on the lowest quality waste gases (50 Btu/scf)
- Low pressure fuel input (2 – 5 psig)
- Nominal electric output of 250 kW
- Available hot water output of 1.1 Million BTU/hr (nominal)
- Near-zero emissions surpasses current regulatory standards

Nominal Electrical Output	250 kW
Nominal Hot Water Output (option)	1.1 MMBTU/hr
Minimum Fuel Quality	50 Btu/scf
Minimum Fuel Supply Pressure	2 to 5 psig
Nox Concentration in Exhaust Gas	<1 ppm
CO Concentration in Exhaust Gas	<1 ppm
Heat Rate (HHV)	3,750,000 Btu/hr
Exhaust Gas Temperature	450-500 F
Exhaust Gas Mass Flow	4.7 lb/sec (2.13 kg/sec)
System Weight	54,000 lbs
System Footprint	20 ft x 12 ft

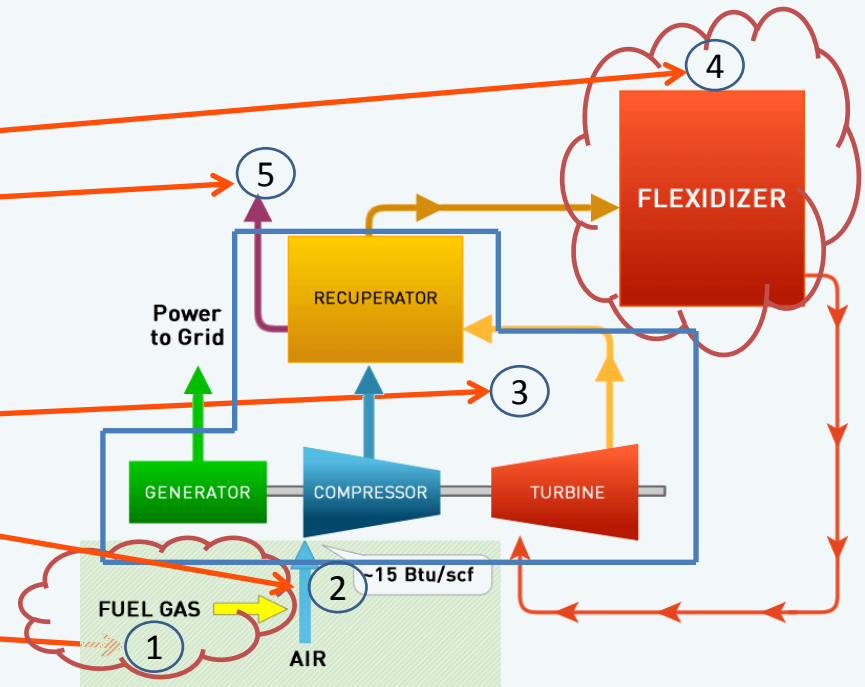
FLEXENERGY INNOVATION: TECHNOLOGY DESCRIPTION

~~Traditional Powerplant requires fuel conditioning & Compressor~~



- 1) Fuel Gas Aspiration at System Inlet Eliminates Need for High Pressure Gas
 - Dilutes Gas Down to 1.5% Methane for Operation
- 2) Flexidizer (Thermal Oxidizer) Replaces Combustor & Eliminates Need for Complex Fuel Conditioning
 - Avoids NO_x formation while destroying CO and VOC's
 - Temperatures maintained above 1450F & below 2000F

FP250 INSTALLED & OPERATING AT FT BENNING LANDFILL



Running on 18% to 24% methane from landfill
No supplemental fuel for continuous operation

- 1) Fuel control valve
- 2) Mixing at turbine inlet
- 3) FlexEnergy gas turbine
- 4) FlexEnergy oxidizer
- 5) System exhaust

Fort Benning Initial Results & Operation Plans

NOx & CO emissions (handheld check)

- Zero NOx & CO measured with Lancom III portable emission analyzer

Flare Shutdown Plan

- Flare shutoff valve installed
- Control integration with site blowers to shutdown flare while Flex is running

Landfill Methane

- ~18% to ~22% methane over course of day

Monitoring Program with SRI & ESTCP/DoD

- Program emissions test expected to occur within 2 months
 - Additional requirements added by FlexEnergy for CA certified tester
- 1 year monitoring & reporting by SRI
- Ft Benning working on long term operations

Aug 19, 2011
Fort Benning emissions, after 44h at Flex mode

Ambient Sun outside	Exhaust
<div>FlexEnergy FLEX100TEST ON MAIN SITE "LANCOM III" ***** SN: 107887 Version No.: V1.09 ***** Type of fuel: Natural Gas Dry analysis O2 normalisation: off ----- Date: 19.08.11 Time: 12:25:36 ----- T ambient: 73 F T gas : 86 F Tg - Ta : 12 F ----- CO : 0.0 ppm 0 ng/Nh3 SO2 : 1.1 ppm 3 ng/Nh3 O2 : 21.6 % NO2 : 0.0 ppm 0 ng/Nh3 NO : 0.0 ppm 0 ng/Nh3 CO2 : 0.00 % NOx : 0.0 ppm 0 ng/Nh3 ----- efficiency : 0.0 % loss : 100.0 % excess air : 1253.6 % water : 0.0 % O2 norm : 15.0 % ----- TEST DONE ON UNIT No. 01 *FOR MORE INFORMATION TEL: 805 527 3878</div>	<div>FlexEnergy FLEX100TEST ON MAIN SITE "LANCOM III" ***** SN: 107887 Version No.: V1.09 ***** Type of fuel: Natural Gas Dry analysis O2 normalisation: off ----- Date: 19.08.11 Time: 12:29:01 ----- T ambient: 73 F T gas : 82 F Tg - Ta : 9 F ----- CO : 0.0 ppm 0 ng/Nh3 SO2 : 2.9 ppm 6 ng/Nh3 O2 : 17.7 % NO2 : 0.0 ppm 0 ng/Nh3 NO : 0.0 ppm 0 ng/Nh3 CO2 : 1.75 % NOx : 0.0 ppm 0 ng/Nh3 ----- efficiency : 89.6 % loss : 10.4 % excess air : 503.4 % water : 0.0 % O2 norm : 15.0 % ----- TEST DONE ON UNIT No. 01 *FOR MORE INFORMATION TEL: 805 527 3878</div>

FLEX TECHNOLOGY INNOVATION

The Cleanest Power Platform in the World

- » FlexEnergy Inc's breakthrough technology efficiently converts low, medium, and high grade fuel streams into heat energy at a temperature high enough to destroy VOCs and CO, and low enough to not create NOx.
- » Novel integration of thermal oxidizer and turbine technologies to deliver power and allows for:
 - » Ultra low pollution profile (less than 1 ppm NOx)
 - » Efficient use of poorest quality gas (runs on 50 Btu fuel)
 - » On and Off-grid continuous power (Baseload, not Peaking)
 - » High ROI for customers (with no environmental impact)
- » FlexEnergy Inc's technology enables customers to generate continuous, clean, distributed power from previously unusable gas

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